Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

## RESEARCHES IN STELLAR PARALLAX MADE AT THE OXFORD UNIVERSITY OBSERVATORY BY THE AID OF PHOTOGRAPHY [BY REV. CHARLES PRITCHARD].

[Extracts from a review by HAROLD JACOBY, printed in *V. J. S. der Ast. Gesell.*, 1893, p. 117].

The following table and extracts from the review above quoted are important and interesting:

TABLE OF PARALLAXES DETERMINED AT OXFORD.

| STAR. | α, 1880.0 | δ, 1880.0 | PARALLAX. | DATE OF OBSERVATIONS. |
|---|---|---|---|---|
| α *Androm.* | $0^h\ 2^m$ | 28° 26′ | +″.058 | 1889 Jan. to 1890 June |
| β *Cassiop.* | 0 3 | 58 29 | + .157 | 1887 Oct. to 1888 Nov. |
| α " | 0 34 | 55 53 | + .036 | 1887 Dec. to 1888 Dec. |
| γ " | 0 50 | 60 4 | + .018 | 1887 Aug. to 1888 Aug. |
| μ " | 1 0 | 54 20 | + .038 | 1886 Oct. to 1887 Oct. |
| β *Androm.* | 1 3 | 34 59 | + .074 | 1889 June to 1890 Sept. |
| α *Urs. Min.* | 1 15 | 88 40 | + .078 | 1887 Feb. to 1888 July |
| α *Arietis* | 2 0 | 22 54 | + .083 | 1888 Jan. to 1890 Jan. |
| β *Persei* | 3 0 | 40 30 | + .060 | 1890 Aug. to 1891 Aug. |
| α " | 3 16 | 49 26 | + .087 | 1888 Aug. to 1889 Aug. |
| β *Tauri* | 5 19 | 28 30 | + .063 | 1890 March to 1891 Sept. |
| β *Aurigæ* | 5 51 | 44 56 | + .062 | 1889 March to 1890 Sept. |
| γ *Geminor.* | 6 31 | 16 30 | — .023 | 1889 March to 1890 Sept. |
| β *Urs. Maj.* | 10 55 | 57 1 | + .088 | 1889 May to 1890 May |
| α " | 10 56 | 62 24 | + .046 | 1888 Dec. to 1889 Dec. |
| β *Leonis* | 11 43 | 15 15 | + .029 | 1888 Dec. to 1890 June |
| γ *Urs. Maj.* | 11 48 | 54 22 | + .095 | 1889 May to 1890 May |
| ε " | 12 49 | 56 37 | + .081 | 1888 Oct. to 1889 Nov. |
| η " | 13 43 | 49 55 | — .046 | 1888 July to 1889 Aug. |
| β *Urs. Min.* | 14 51 | 74 39 | + .029 | 1889 Jan. to 1890 Feb. |
| α *Coronæ* | 15 30 | 27 7 | — .037 | 1888 July to 1889 July |
| γ *Draconis* | 17 54 | 51 30 | + .050 | 1891 Jan. to 1892 March |
| γ *Cygni* | 20 18 | 39 52 | + .104 | 1888 May to 1889 May |
| ε " | 20 41 | 33 31 | + .129 | 1888 May to 1889 May |
| $61_1$ " | 21 2 | 38 10 | + .433 | 1886 May to 1887 May |
| $61_2$ " | | | + .435 | |
| α *Cephei* | 21 16 | 62 5 | + .058 | 1887 Nov. to 1888 Nov. |
| ε *Pegasi* | 21 38 | 9 20 | + .083 | 1889 May to 1890 Nov. |
| α " | 22 59 | 14 34 | + .081 | 1889 March to 1890 March |

"A glance at the table shows a distinct dependence of the parallaxes upon right ascension. If we take the means for each $6^h$, omitting 61 *Cygni*, on account of its large parallax, we find:

| R. A. | Mean Parallax. | No. of Stars. |
|---|---|---|
| $18^h$ — $24^h$ | $+0''.091$ | 5 |
| 0 — 6 | .068 | 12 |
| 6 — 12 | .047 | 5 |
| 12 — 18 | .015 | 5 |

The variation with right ascension is small, but well defined. There can be no doubt that it is due to systematic error in the observations, whereby the results are made to depend upon the months in which observations begin and end. In fact, again omitting 61 *Cygni*, the eight stars observed from May to May, or November to November, exhibit a mean parallax of $+0''.100$, while the nineteen others come out with a mean parallax of only $+0''.041$. From the data given by the author, it is of course impossible to discover the immediate cause of systematic error, but it is doubtless of instrumental origin. Its numerical minuteness is no less remarkable than its very distinct character. This speaks highly for the accuracy of the results; yet, in the light of the above evidence, we are not justified in accepting the extremely small probable errors deduced by the author as reliable indications of uncertainty. The table of parallaxes proves that the stars in question are excessively remote, but it proves no more. With the possible exception of *β Cassiopeiæ*, we cannot even regard the existence of measurable parallaxes as proven absolutely. Yet the general result of the entire research certainly shows the high value of the photographic method. Probably a few additional precautions, such as the use of a réseau to detect variations of the film, and a more thorough investigation of the optical distortion of the field, would tend to diminish still further the small systematic errors to which attention has been called."

## PHOTOGRAPH OF THE MOON, 1891, OCTOBER 11.

The frontispiece of the present number represents one of the many attempts to find a method of reproducing the Lick Observatory moon negatives which should be at the same time satisfactory and not too expensive. The picture is *reversed;* the top of the plate is south, the right-hand border is west.

E. S. H.